CBCS SCHEME

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18CS55

Fifth Semester B.E. Degree Examination, Jan./Feb. 2023
Application Development using Python

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. List the salient features of python programming language. **(04 Marks)**

b. Explain the math operators in python from highest to lowest precedence with an example for each. Show steps to evaluate (5 – 1) * (7 + 1) (3 – 1) in python. **(08 Marks)**

c. Write a program to find the sum of all odd and even numbers of n elements. Here skip the numbers which are divisible by 3. **(08 Marks)**

OR

2 a. Give one example for each of the operation below in python language:
i) String concatenation and replication.
ii) Read input and display. **(10 Marks)**

b. Explain:
i) Def statements with parameters
ii) Return values and return statements with an example. **(10 Marks)**

Module-2

3 a. Discuss the different ways of traversing a list. Explain each with an example. **(10 Marks)**

b. Write a python program that allows a player to guess a secret number within 6 chances. The code that lets the player enter a guess and checks that guess is right or not by printing appropriate message. List of numbers are taken as an input from the user. **(07 Marks)**

c. Write a program to demonstrate the use of pretty function. **(03 Marks)**

OR

4 a. Compare list and dictionary data structures with respect to python language. **(04 Marks)**

b. Write a program in python that counts. The number of occurrences of each letter in a string. Display the results in column fashion. **(08 Marks)**

c. Write the string method syntax in python to perform below operations.
i) Removing white space characters from beginning, end or both sides of a string.
ii) To right-justify, left-justify and center a string. **(08 Marks)**

Module-3

5 a. List out the different character classes. Give representation, regular expression symbols, example and meanings for each character class. **(10 Marks)**

b. Describe the following with suitable python code snippet:
i) Greedy and Non Greedy pattern matching.
ii) Findall( ) method of RegeX object. **(10 Marks)**

OR

6 a. Write a python program to rename the filename contains American style dates (MM – DD – YYYY) to European style dates (DD – MM – YYYY) in the working directory. **(10 Marks)**

b. What are Assertions in python? Explain with an example. **(05 Marks)**

c. Explain the file reading and writing process with suitable python program. **(05 Marks)**

Module-4

7 a. How objects are mutable by nature justify with an example? **(04 Marks)**

b. Discuss the methods isinstance( ) and hasattr( ) with suitable example for each. **(06 Marks)**

c. What is operator over loading? Write a program to add two point objects by overloading + operator. Also, overload – str – ( ) to display point as an ordered pair. **(10 Marks)**

OR

8 a. Define Inheritance. Explain with an example. **(06 Marks)**

b. Briefly discuss the importance of - -init- -( ) and - - sti - ( ) methods in python. **(04 Marks)**

c. Demonstrate the polymorphism to generate histogram to count the number of times each letter appears in word and in sentence. **(10 Marks)**

Module-5

9 a. Analyze the steps involved in downloading and saving web page on to local system along with program. **(06 Marks)**

b. List any 4 CSS selectors of bs4 module. Using Beautiful soup passel, retrieve all of the paragraph tags in the web page www.amazon.com. **(06 Marks)**

c. How selenium module is useful to deal with web pages. What methods do it uses to simulate mouse clicks and keyboard keys? **(08 Marks)**

OR

10 a. Write a program to read the census data from the excel spreadsheet, count the number of census tracts in each country, count the total population of each country and prints the results.

1	Census tract	State	County	POP2010
9841	06075010500	CA	SanFrancsico	2685
9842	06075010600	CA	SanFrancisco	3894
9843	06075010700	CA	SanFrancisco	5592

(08 Marks)

b. How to zip the files and folders. Demonstrate with one example. **(04 Marks)**

c. Write a script that will go through every PDF in a folder and encrypt the PDFS using a password provided on the command line. Save each encrypted PDF with an-encrypted pdf suffix added to the original filename. **(08 Marks)**

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